

VisionLink XF

Remote camera extender over fiber for Camera Link, extended full mode

Description

The VisionLink XF is a fiber extender for base through extended full (80-bit) mode Camera Link. The fiber provides electrical isolation and allows the camera to be tens to thousands of meters from the host computer, depending on transceivers and cabling.

Each extender supports data rates up to 850 MB/s, with a pixel clock of 20-85 MHz.

The extenders work in pairs. One unit connects to the camera and the other to an EDT or third-party frame grabber via Camera Link cables. Fiber-optic cable then connects the two units for a complete extension system.

Triggering / serial is provided via Camera Link, or externally via a Lemo power connector which can replace the standard Switchcraft power connector.



Features

- Extender adapts Camera Link modes (base through 80-bit) over fiber
- Supports base through 80-bit mode up to 85 MHz
- Joins with a second extender to form a fiber-optic extension system
- Enables remote operation (tens to thousands of meters from host computer)
- Provides electrical isolation of camera from host
- Supports triggering / serial via Camera Link or externally via optional Lemo

Applications

- Astronomy / biology / microscopy
- Aerial mapping / traffic systems
- Commercial film / multimedia
- Medical and nuclear imaging
- Manufacturing / inspection
- Machine vision / robotics
- Security / surveillance
- Scanning / archiving
- Remote sensing

Specifications

Memory	FIFOs for up to several lines of data; no frame memory	
Data Rates	Up to 850 MB/s (maximum Camera Link rate)	
Data Format (I/O)	Camera Link	
Camera Link Compliance	Version	2.0
	Modes	Base through extended full (80-bit) mode
	Pixel clock rate	20–85 MHz
	Serial	9600 to 115,200 baud
	Control	CC1-CC4
	Connector	Two SDR26
EU Compliance	TBD	
Laser Safety	Class 1 (for EDT-supplied transceivers)	
Noise	0 dB	
Transceiver	Each extender has one fiberoptic SFP+ (10 Gb/s) with duplex LC; standard wavelengths and cables include...	
	Wavelength	Cable Range at 10 Gb/s
	850 nm	62.5- μ MMF (OM1) 33 meters
	850 nm	50- μ MMF (OM3) 300 meters
	1310 nm	9- μ SMF Up to 10 kilometers
	For longer ranges (10 to 100+ kilometers): CWDM and bidirectional transceivers are available in various wavelengths; contact EDT.	
Triggering / Serial	Camera Link	CC1-CC4, SERTC, SERTFG
	External triggering / auxiliary serial	Optional 7-pin Lemo ECG.OB.307.CLV; mate to FGG.OB.307.CLAD.56
Power	Consumption	Less than 5 watts at 12 V DC
	Supply, revision 00 XF only	12 V DC
	Supply, revision 10 and above	12 V – 24 V DC
	Connector (standard)	2-conductor Switchcraft 712RA; mate to Switchcraft 760K
	Connector (optional)	7-pin Lemo ECG.OB.307.CLV; mate to FGG.OB.307.CLAD.56
Cabling	Required cabling is purchased separately; see below and consult EDT for options.	
	Camera Link cables (1 meter each)	SDR-to-MDR or SDR-to-SDR
	Fiber-optic cable	See Transceiver section above
	Fiber connection polish	Standard physical contact (PC)
Physical	Weight	6.6 oz.
	Dimensions	3.00" W x 3.25" L x 1.25" H
Environmental	Component	Temperature (operating / non-operating)
	VisionLink XF (with no transceivers)	-40 to +60° C / -40 to +60° C
	Transceiver, 850nm	0 to +70° C / -40 to +85° C
	Transceiver, 1310nm	0 to +70° C / -40 to +85° C
System	Computer system requirements are framegrabber-dependent; for details, see the user's guide for your framegrabber.	
MTBF	w/o fan	100,000 hrs
	w/fan	28,000 hrs*
	*Fan not a critical component if adequate external cooling provided	

Ordering Options

Part number(s)	Description
053-15258 / 053-15329	Extender, camera end: Switchcraft / Lemo
053-15332 / 053-15333	Extender, frame grabber end: Switchcraft / Lemo
037-13789 / 037-15346	Transceiver, SFP+ (in extender): 850 / 1310 nm
016-15340	Cabling, Camera Link (1 meter): SDR-to-MDR
016-15341	Cabling, Camera Link (1 meter): SDR-to-SDR
[Contact EDT]	Cabling: fiber-optic

Bold is default. **Ask about custom options.**